

***Amendments to the Claims***

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A cable modem system for transferring data from a user device to a network, comprising:

a cable modem;

a DOCSIS-compliant cable modem termination system coupled to said cable modem via a cable network; and

a headend server coupled to said cable modem termination system and to the network;

wherein said cable modem is adapted to receive data packets from the user device, to modify the contents of said data packets in accordance with a non-DOCSIS-compliant data transfer protocol, to append address information corresponding to said headend server to said modified data packets, and to transfer said modified data packets to said cable modem termination system;

wherein said cable modem termination system is adapted to receive said modified data packets and to transfer said modified data packets to said headend server in accordance with said address information; and

wherein said headend server is adapted to restore the contents of said modified data packets to an unmodified state and to transfer said restored data packets to the network.

2. (Canceled)

3. (Original) The cable modem system of claim 1, wherein said address information comprises an Ethernet address.

4. (Original) The cable modem system of claim 1, wherein the network comprises the Internet.

5. (Original) The cable modem system of claim 1, wherein said cable modem is adapted to modify the contents of said data packets by suppressing header information in said data packets, and said headend server is adapted to restore the contents of said modified data packets to an unmodified state by restoring said suppressed header information.

6. (Currently Amended) A cable modem system for transferring data packets from a cable modem to a network, wherein the data packets are formatted in accordance with a non-DOCSIS-compliant data transfer protocol, comprising:

a DOCSIS-compliant cable modem termination system coupled to said cable modem via a cable network; and

a headend server coupled to said cable modem termination system and to the network;

wherein said cable modem termination system is adapted to receive the data packets and to transfer the data packets to said headend server in accordance with address information appended to the data packets; and

wherein said headend server is adapted to modify the format of the data packets in accordance with the non-DOCSIS-compliant data transfer protocol and to transfer said modified data packets to the network.

7. (Canceled)

8. (Currently Amended) The cable modem system of claim [[7]]6, wherein said address information comprises an Ethernet address.

9. (Original) The cable modem system of claim 6, wherein the network comprises the Internet.

10. (Original) The cable modem system of claim 6, wherein the data packets received by said cable modem termination system have been formatted in accordance with a header suppression scheme, and wherein said headend server is adapted to restore suppressed header information to the data packets.

11. (Currently Amended) A cable modem system for transferring data from a user device to a network, comprising:

a cable modem;

a DOCSIS-compliant cable modem termination system coupled to said cable modem via a cable network and coupled to the network; and

a headend server coupled to said cable modem termination system;

wherein said cable modem is adapted to receive data packets from the user device, to modify the contents of said data packets in accordance with a non-DOCSIS-compliant data transfer protocol, to append address information corresponding to said headend server to said modified data packets, and to transfer said modified data packets to said cable modem termination system;

wherein said cable modem termination system is adapted to receive said modified data packets and to transfer said modified data packets to said headend server in accordance with said address information;

wherein said headend server is adapted to restore the contents of said modified data packets to an unmodified state and to transfer said restored data packets to said cable modem termination system;

and wherein said cable modem termination system is further adapted to receive said restored data packets and to transfer said restored data packets to the network.

12. (Currently Amended) A method for transferring data in a cable modem system, comprising:

receiving data packets from a user device;

modifying the contents of said data packets in accordance with a non-DOCSIS-compliant data transfer protocol;

appending address information corresponding to a headend server to the modified data packets;

transferring the modified data packets over a cable network to a DOCSIS-compliant cable modem termination system;

~~receiving the modified data packets~~;

wherein the cable modem termination system is adapted to transfer the modified data packets to the headend server in accordance with the address information; and

wherein the headend server is adapted to ~~restoring~~ restore the contents of said modified data packets to an unmodified state[[:]] and ~~transferring~~ transfer said restored data packets to a network.

13. (Canceled)

14. (Canceled)

15. (New) The method of claim 12, wherein said modifying step comprises suppressing header information of said data packets, and wherein the headend server is adapted to restore the suppressed header information.

16. (New) The method of claim 12, wherein said appending step comprises appending an Ethernet address that directs the modified data packets to the headend server.